

Abstract

5 The present invention relates to a catalytically active composition comprising as active component

- Pd and Bi and
- at least one element selected from the group (a) consisting of Rh, Au, Sb,
10 V, Cr, W, Mn, Fe, Co, Ni, Na, Cs and Ba,

or

- Pd, Rh and Bi and
- optionally an element selected from the group (a') consisting of Au, Sb, V,
15 Cr, W, Mn, Fe, Co, Ni, Pt, Cu, Ag, Na, Cs, Mg, Ca and Ba.

The present invention further provides a process for dehydrogenating hydrocarbons, preferably oxo-functionalized hydrocarbons such as
20 cyclopentanone, cyclohexanone and isovaleraldehyde, using the catalytically active composition.